The equipment for spreading and finishing shall be mechanical, self-powered pavers, capable of spreading and finishing the mixture true to line, grade, width, and crown by means of fully automated controls for both longitudinal and transverse slope. The use of any other type of equipment for spreading and finishing shall require the prior written approval of the Engineer.

COMPENSATION

420.80 Method of Measurement.

Bituminous concrete shall be measured by the metric ton and shall be the actual and verified tonnage, complete in place and approved. The quantity shall be determined only by weight slips that have been properly countersigned by the Engineer at the time of delivery.

Bitumen used for prime coat, if required by plans or specifications or ordered by the Engineer, will be measured as specified in Subsection 468.80.

420.81 Basis of Payment.

The bituminous concrete, determined as provided above, will be paid for at the contract unit price per metric ton of the kind of bituminous concrete required, complete in place.

Bitumen as specified herein to be paid for as prime coat, if required, will be paid for at the contract unit price per liter under the item for Bitumen for Prime Coat, complete in place.

420.82 Payment Items.

420.	Class I Bituminous Concrete Base Course, Type I-1	Metric Ton
463.	Bitumen for Prime Coat	Liter

SECTION 430

CEMENT CONCRETE BASE COURSE

DESCRIPTION

430.20 General.

Cement concrete base course shall be constructed in one course on the prepared sub-base in accordance with these specifications and in close conformity with the lines and grades shown on the plans or established by the Engineer.

MATERIALS

430.40 General.

Materials shall meet the requirements specified in the following Subsections of Division III, Materials:

20 MPa - 40 mm - 280 kg Cement Concrete*	M4.02.00
Preformed Joint Filler	M9.14.0
Hot Poured Joint Sealer	M3.05.0

*The concrete shall have a slump of 50 millimeters with a tolerance of plus or minus 13 millimeters.

CONSTRUCTION METHODS

430.60 General.

The cement concrete base course may be constructed by the Slip-Form Method or the Fixed-Form Method.

Equipment and tools necessary for handling materials and performing all parts of the work shall be approved by the Engineer as to design, capacity, and mechanical condition.

Grade control survey and staking shall conform to Subsection 5.07. The Contractor shall furnish, set, and maintain all line and grade stakes for grading and paving.

430.61 Side Forms.

The forms where required shall be an approved wood or metal type, of a width equal to the depth of the concrete, true to line, free from warp and of sufficient strength, when staked, to resist the pressure of the concrete without springing and so designed that the various sections may be fastened together in such a manner as to prevent the vertical or horizontal movement of the ends.

The forms shall be jointed neatly and tight, shall be set true to line and grade, well staked and braced, and shall have uniform bearing on the sub-base through their entire length. In general the setting of forms shall proceed at least 150 meters in advance of the mixing and placing of concrete. The form shall be thoroughly cleaned before any concrete is placed against them and shall be made tight to prevent the leaking of mortar from the concrete.

430.62 Fine Grading.

The fine grading of the foundation shall conform to Subsection 476.61.

430.63 Joints.

The Contractor shall construct weakened plane transverse contraction joints in the concrete base course every 10 to 15 meters or as shown on the plans. These joints shall consist of surface slots constructed in accordance with the requirements of Subsection 476.68C for transverse contraction joints.

Expansion joints shall be formed about all structures and features projecting through or into the pavement and between the pavement slab and adjacent curbing. Unless otherwise indicated, such joints shall be 15 millimeters in width and shall be filled with preformed joint filler as specified in Subsection M9.14.0 and sealed with joint filler compound as specified in Subsection M3.05.0 in the same manner as specified for transverse expansion joints in Subsection 476.68B. There will be no additional compensation of joints.

430.64 Placing Concrete.

Concrete shall be placed on a moist, firm and smooth sub-base in accordance with the requirements of Subsection 476.64 except that it shall be placed in one layer.

430.65 Finishing Concrete.

The surface of the concrete shall be struck off with a template shaped so as to leave the concrete with a smooth, even contour surface and crown as shown on the plans and in the typical cross section. The template shall be so constructed that it shall have sufficient strength to retain its shape under all working conditions. This template shall be moved with a longitudinal and crosswise motion and always in the direction in which the work is progressing. The surface of the concrete shall be finished to the elevations, contours and crowns required with a tolerance allowance of 5 millimeters in 3 meters.

The surface of the concrete shall be made free of footprints, ruts, depressions or other imperfections and shall then be lightly broomed, as directed, with approved stable or wire brooms.

430.66 Protection and Curing.

The pavement shall be protected and cured as required in Subsection 476.71 except that membrane compounds not compatible with bituminous materials shall not be used.

COMPENSATION

430.80 Method of Measurement.

Cement concrete base course will be measured in place by the square meter conforming to the length, width and depth required by the plans or as directed. The Contractor shall have no claim for extra payment if thickness of pavement exceeds that shown on the plans or as directed.

430.81 Basis of Payment.

Standard cement concrete base course will be paid for at the contract unit price per square meter under the item for Cement Concrete Base Course.

High early strength concrete base course will be paid for at the contract unit price per square meter under the item for High Early Strength Cement Concrete Base Course.

The price paid per square meter shall also include all sprinkling or treating the roadway to keep down dust.

430.82 Payment Items.

430.	Cement Concrete Base Course	Square Meter
431.	High Early Strength Cement Concrete Base Course	Square Meter

SECTION 440

ROADWAY DUST CONTROL

DESCRIPTION

440.20 General.

This work shall consist of furnishing and applying approved dust control material to the surface of the subgrade or elsewhere as directed in accordance with these specifications.

MATERIALS

440.40 Materials.

The material for this work shall be of the kind shown on the plans and shall meet the requirements of the following Subsections of Division III, Materials:

Sand	M1.04.0, Type a
Calcium Chloride	M9.01.0
Bituminous Material	
Cut-back Asphalt	M3.02.0
Asphalt Emulsion	M3.03.0